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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0126; Project Identifier MCAI-2020-00266-R; Amendment 39-21556; AD 2021-10-23]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters Deutschland GmbH (AHD) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Airbus Helicopters Deutschland GmbH (AHD) Model MBB-BK 117 D-2 helicopters. This AD was prompted by a report of a broken Titanium (Ti) bolt. This AD requires removing certain Ti-bolts from service and prohibits installing these Ti-bolts in a critical area. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective July 6, 2021.

The Director of the Federal Register approved the incorporation by reference of a certain document listed in this AD as of July 6, 2021.

ADDRESSES: For service information identified in this final rule, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at https://www.airbus.com/helicopters/services/technical-support.html. You may view the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. It is also available at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0126.

Examining the AD Docket

You may examine the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0126; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the European Union Aviation Safety Agency (EASA) AD, any service information that is incorporated by reference, any comments received, and other information. The street address for Docket Operations is U.S.

Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Matt Fuller, AD Program Manager, General Aviation & Rotorcraft Unit, Airworthiness Products Section, Operational Safety Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email matthew.fuller@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Airbus Helicopters Deutschland GmbH (AHD) Model MBB-BK 117 D-2 helicopters with a Ti-bolt part number (P/N) EN3740-060022F marked with manufacturer monogram "D" or with an illegible manufacturer monogram, installed on the aft connection of the tail rotor ball bearing control. The NPRM published in the Federal Register on March 3, 2021 (86 FR 12294). In the NPRM, the FAA proposed to require removing any affected Ti-bolt P/N EN3740-060022F from service. The NPRM also to prohibit installing an affected Ti-bolt on the aft connection of the ball bearing control of any helicopter. The NPRM was prompted by EASA AD 2019-0258, dated October 18, 2019 (EASA AD 2019-0258), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Airbus Helicopters Deutschland GmbH (AHD), formerly Eurocopter Deutschland GmbH, Model MBB-BK117 D-2 helicopters. EASA advises of a report of a broken Ti-bolt. Subsequent investigation revealed that an improper heat treatment process was accomplished on a batch of Ti-bolts, which can lead to hydrogen embrittlement. Hydrogen embrittlement can make high-strength bolts susceptible to stress corrosion, pitting, and failure. EASA states that this condition, if not detected and corrected, could lead to failure of an affected Ti-bolt installed in a critical location, possibly resulting in reduced control of the helicopter.

Accordingly, EASA AD 2019-0258 requires a one-time inspection for Ti-bolt P/N EN3740-060022F marked with manufacturer monogram "D" or with an illegible manufacturer monogram installed on the aft connection of the tail rotor ball bearing control (ball bearing control) and, depending on findings, contacting AHD for corrective action. EASA AD 2019-0258 also prohibits the (re)installation of these Ti-bolts.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Airbus Helicopters Alert Service Bulletin No. ASB MBB-BK117 D-2-00A-001, Revision 1, dated October 16, 2019, which specifies replacing each Ti-bolt P/N EN3740-

060022F that is marked with manufacturer monogram “D” or if the manufacturer monogram cannot be identified with an airworthy Ti-bolt in both locations of the aft connection of ball bearing control and both high frequency (HF) antenna bracket locations.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Differences Between This AD and the EASA AD

EASA AD 2019-0258 applies to Model MBB-BK117 D-2 helicopters and requires inspecting for Ti-bolt P/N EN3740-060022F marked with manufacturer monogram “D” or with an illegible manufacturer monogram installed on the aft connection of the ball bearing control. This AD applies to Model MBB-BK 117 D-2 helicopters with a Ti-bolt P/N EN3740-060022F marked with manufacturer monogram “D” or with an illegible manufacturer monogram installed on the aft connection of the ball bearing control instead. EASA AD 2019-0258 requires contacting AHD for approved instructions if an affected Ti-bolt is found, whereas this AD requires removing an affected Ti-bolt from service instead.

Costs of Compliance

The FAA estimates that this AD affects 29 helicopters of U.S. Registry. Labor rates are estimated at $85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Replacing a Ti-bolt takes about 2 work-hours and parts cost about $100 for an estimated cost of $270 per Ti-bolt.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021-10-23 Airbus Helicopters Deutschland GmbH (AHD): Amendment 39-21556; Docket No. FAA-2021-0126; Project Identifier MCAI-2020-00266-R.

(a) Effective Date

This airworthiness directive (AD) is effective July 6, 2021.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Airbus Helicopters Deutschland GmbH (AHD) Model MBB-BK 117 D-2 helicopters, certificated in any category, with a Titanium (Ti) bolt part number EN3740-060022F marked with manufacturer monogram "D" or with an illegible manufacturer monogram, installed on the aft connection of the tail rotor ball bearing control.

(d) Subject

Joint Aircraft Service Component (JASC) Codes: 1430, Fasteners; and 6720, Tail Rotor Control System.

(e) Unsafe Condition

This AD was prompted by a Ti-bolt with hydrogen embrittlement. This condition could result in failure of the tail rotor ball bearing control Ti-bolt and subsequent loss of tail rotor control.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Within 50 hours time-in-service or 3 months, whichever occurs first, remove any Ti-bolt identified in paragraph (c) of this AD, located on the aft connection of the tail rotor ball bearing rod end (item 5) and at the input lever (item 2) as shown in Figure 1 to Airbus Helicopters Alert Service Bulletin No. ASB MBB-BK117 D-2-00A-001, Revision 1, dated October 16, 2019, from service.

(2) As of the effective date of this AD, do not install a Ti-bolt identified in paragraph (c) of this AD on the aft connection of the tail rotor ball bearing control of any helicopter.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (i)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Matt Fuller, AD Program Manager, General Aviation & Rotorcraft Unit, Airworthiness Products Section, Operational Safety Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email matthew.fuller@faa.gov.

(2) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD 2019-0258, dated October 18, 2019. You may view the EASA AD at https://www.regulations.gov in Docket No. FAA-2021-0126.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Airbus Helicopters Alert Service Bulletin No. ASB MBB-BK117 D-2-00A-001, Revision 1, dated October 16, 2019.

(ii) [Reserved]

(3) For service information identified in this AD, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at https://www.airbus.com/helicopters/services/technical-support.html.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fedreg.legal@nara.gov, or go to: https://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on May 7, 2021.

Gaetano A. Sciortino,

Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.

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